IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Steve Zhihua ZENG et al.		
Title:	METHOD AND SYSTEM FOR NOISE REDUCTION IN AN IMAGE		
App. No.:	10/673,612	Filed:	September 29, 2003
Examiner:	Chong R. KIM	Group Art Unit:	2624
Atty. Dkt. No.:	1459-VIXS063	Confirmation No.:	2553

Mail Stop AF
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

REMARKS IN SUPPORT OF THE PRE-APPEAL BRIEF REQUEST FOR REVIEW

Dear Sir:

In response to the Final Office Action mailed May 9, 2008 (hereinafter "the Final Action"), and pursuant to the Notice of Appeal and Pre-Appeal Brief Request for Review submitted herewith, the Applicants request review of the following issues on appeal.

Request for at least three examiners on the panel

In order to facilitate full consideration of the remarks filed herewith, the Applicants respectfully request that the Art Unit Supervisor designate a panel composed of at least three examiners.

It would not be obvious to combine Maeda, Mita, and Fujii as proposed by the Office

Independent claims 1, 18, and 20 are rejected as unpatentable over Maeda (US. Patent No. 5,606,630) in view of Mita (U.S. Patent No. 5,231,677) and further in view of Fujii (U.S. Patent App. Pub. No. 2002/0114015). Independent claim 1 presently recites the features of "blending the first video layer with a first other layer based upon ***only one of*** *a vertical edge component or a horizontal edge component*." Independent claim 18 presently recites the features of "the blending ratio is based on ***only one of*** *a vertical edge component or a horizontal edge component* of the edge layer." Similarly, independent claim 20 presently recites the features of "a blending controller . . . to provide a destination layer of a video image based upon the

smoothed video image and ***only one of*** *a vertical edge component or a horizontal edge component* of the edge layer."

The Office acknowledges that Mita and Maeda fails to disclose or suggest blending based on *only one* of a vertical edge component or a horizontal edge component. *Office Action*, p. 3. The Office therefore turns to Fujii as disclosing "detecting edge information that comprises only horizontal or only vertical components [citing Fujii, para. 190]" *Id.*, pp. 3-4. The Office reasons that it would be obvious to combine Mita, Maeda, and Fujii as

> they are all concerned with image processing methods. At the time of the invention, it would have been obvious . . . to modify Mita's edge detection process so that only the vertical or only the horizontal edge components are detected, as taught by [Fujii]. The reason for doing so would have been to enhance the computational efficiency of the edge detection process by reducing, by half, the amount of edges required to be detected in the image. Therefore, it would have been obvious to combine Maeda and Mita with [Fujii] to obtain the invention as specified in [the claims].

Id., p. 4. The Applicants respectfully disagree.

As discussed in the previous Responses, Maeda is directed to "digital copying apparatuses, facsimile apparatuses, etc.., which handle an image signal". *Maeda*, Abstract. Mita is directed to "reproducing a photographic image recorded on film." *Mita*, Abstract. Accordingly, Maeda and Mita, if combined, would result in a technique directed to enhanced contrast in a copied/reproduced image via blending of both horizontal edge components and vertical edge components. Fujii, however, teaches that the edge detection process is for an auto focus (AF) process in a still camera, whereby edges in an image to be captured are detected, and the optical lens system of the still camera is adjusted so as to achieve focus based on the detected edges. *See, e.g., Fujii*, paras. 0010, 0091, and 0092. Fujii fails to disclose or suggest that the image used for this autofocus process is blended in any manner, much less that the edges detected in the autofocus process are used for blending. Further, one of ordinary skill in the art will appreciated that the process of evaluating an image so as to determine the degree of adjustment to a lens assembly to obtain focus has no relation to blending an image to enhance contrast, or vice versa. Thus, one of ordinary skill in the art, considering Maeda, Mita, and Fujii in their entireties, would not find it obvious to use the edge detection process for controlling autofocus in a still camera in the process of contrast enhancement via blending as taught by the combination of Maeda and Mita as it is unclear as to how techniques related to autofocusing in a

still camera for purposes of recording a yet-to-be-recorded image have any relation or supply any improvement to techniques related to contrast enhancement in an already-recorded image.

Further, with respect to the Office's rationale that the reason for combining Maeda and Mita with Fujii would be for computational efficiency, it is respectfully submitted that the Office fails to establish that the computational requirements of detecting both the horizontal and vertical edge components sufficiently overwhelmed the computational resources conventionally available at the time of the invention so as to motivate one of ordinary skill to seek an alternate approach.

In view of the foregoing, it would not be obvious to combine Maeda, Mita, and Fujii as proposed by the Office to arrive at the subject matter recited by independent claims 1, 18, and 20, as well as their dependent claims. The other references cited by the Office, namely Hsieh (U.S. Patent No. 6,011,558) and Sobel (U.S. Patent No. 6,707,937) fail to compensate for the deficiencies of Maeda, Mita, and Fujii with respect to claims 1, 18, and 20. Thus, it is respectfully submitted that the Office fails to establish a prima facie case of obviousness for claims 1-10, 13, and 15-24 for at least the reasons described above. Withdrawal of the obviousness rejections therefore is respectfully requested.

Respectfully submitted,

/Ryan S. Davidson/ August 8, 2007
Ryan S. Davidson, Reg. No. 51,596 Date
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